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SEP 24 2003

To: Examiner Christopher Yaen
Art Group 1642

From: Leonard R. Svensson/Susan W. Gorman

Fax: 703-308-4242

Pages: 25 (including cover sheet)

Phone: 703-305-3586

Date: September 17, 2003

Your Ref.: 09/889,300

Our Ref.: 0147-0229P

Re: Materials for Interview on 09/19/2003

CC:

☐ Urgent ☐ For Review ☐ Please Comment ☐ Please Reply ☐ Please Recycle

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o **Comments:**

Dear Examiner Yaen,

Please find attached the following materials for the interview on Friday, September 19 at 3:30 p.m.:

- ☒ UNOFFICIAL Outline of Interview
- ☒ UNOFFICIAL Proposed Amended Claims
- ☒ UNOFFICIAL Declaration of Hans Loibner dated September 9, 2003
- ☐ UNOFFICIAL Declaration of Hans Loibner dated July 17, 2002. (see 2nd facsimile)

Best regards,

Leonard R. Svensson
Susan W. Gorman

Outline of Interview

1. Enablement Rejections

1.1 Claims 1 and 6: no evidence that one skilled in the art could make additional antibodies against EpCAM that would work in the invention.

- Loibner Declaration #1: use of two different antibody preparations (HE-2 and 73-3; HE-2 and KS1/4)
- Loibner Declaration #2: results of clinical trials using a non-HE-2, anti-EpCam antibody, specifically antibody 17-A1.

1.2 Claims 1-9: use of the terms "vaccination" and "prevention".

- Amendment to claims deleting "vaccination" and "prevention."

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2. Novelty Rejections

2.1 Claims 1-3 (Braun et al.)

- Enclosed certified translation of priority document

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3. Obviousness Rejections

3.1 Claim 7 (Braun in view of Pardoll):

- Presentation of certified translation of priority document

DRAFT

Proposed Amended Claims

1. (~~Twice-Currently Amended~~) An individual dosage form of a pharmaceutical composition for humans~~vaccination to actively immunize cancer patients for the prevention of the development of metastasis and treatment of cancer disease~~ comprising a dose of 0.01-4 mg of at least one a first antibody directed against the cellular membrane antigen EpCAM.
2. (Currently Amended) The ~~pharmaceutical composition~~individual dosage form of claim 1, wherein said antibody is of animal origin.
3. (Currently Amended) The ~~pharmaceutical composition~~individual dosage form of claim 1, wherein said antibody is a monoclonal antibody.
4. (Currently Amended) The ~~pharmaceutical composition~~individual dosage form of claim 3, wherein said first antibody is a murine monoclonal antibody, wherein the variable region of the heavy chain is the amino acid sequence as shown in SEQ ID NO:1 and wherein the variable region of the light chain is the amino acid sequence as shown in SEQ ID NO:2.
5. (Currently ~~Twice~~ Amended) The ~~pharmaceutical composition~~individual dosage form of any one of claims 1-3, wherein said first antibody has the same specificity of binding as that antibody defined in claim 4.
6. (Currently ~~Twice~~ Amended) The ~~pharmaceutical composition~~individual dosage form of claim 1, ~~wherein two or more antibodies, which are further comprising at least a second antibody directed against different membrane antigens or against a different epitope~~scitope of said EpCam membrane antigen, are used in combination with each other.
7. (Currently Amended) The ~~pharmaceutical composition~~individual dosage form of claim 1, further comprising at least one ~~vaccine~~ adjuvant.

DRAFT

8. (Currently Amended) A method of ~~vaccination against cancer therapy~~ comprising administering to a human patient in need thereof the pharmaceutical composition of claim 1 at a dosage in the range of 0.01 to 4 mg per dose of a first antibody directed against the cellular membrane antigen EpCAM.
9. (Currently Amended) The method according to claim 8, wherein said ~~pharmaceutical composition~~ dose is administered by subcutaneous, intradermal or intramuscular injection.
10. (Currently Amended~~New~~) The method according to claim 8, wherein said first antibody is a ~~A pharmaceutical composition for therapeutic vaccination against cancer comprising at least one monoclonal antibody of animal origin directed against the cellular membrane antigen Ep-CAM, wherein one of said at least one~~ first antibody has the amino acid sequence of SEQ ID NO:1 for the variable region of the heavy chain and the amino acid sequence of SEQ ID NO:2 for the variable region of the light chain.
11. (Currently Amended~~New~~) The pharmaceutical composition ~~method~~ of claim 10, which further comprising ~~at least one vaccine adjuvant.~~
12. (Currently Amended~~New~~) ~~A~~ The method of claim 8 or 10, wherein said dose is 0.5 mg therapeutic vaccination against cancer comprising administering to a patient in need thereof the pharmaceutical composition of claim 10 at a dosage in the range of 0.01 to 4 mg antibody.

DRAFT

13. (~~New~~Previously Presented) The method according to claim 12, wherein said ~~pharmaceutical composition~~dose is administered by subcutaneous, intradermal or intramuscular injection.

14. (~~Currently Amended~~New) An individual dosage form of a pharmaceutical composition for humans method of vaccination against cancer comprising administering to a patient in need thereof the pharmaceutical composition of claim 1 at a dosage in the range of 0.01 to 4 mg of a first monoclonal antibody of animal origin directed against the cellular membrane antigen EpCAM, wherein said first antibody has the amino acid sequence of SEQ ID NO.:1 for the variable region of the heavy chain and the amino acid sequence of SEQ ID NO.:2 for the variable region of the light chain for the prevention of the development of metastasis and treatment of cancer disease.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Examiner: Yaen; Christopher H
Group Art Unit: 1642
Applicants: Eckert, Helmut et al.
Serial No.: 09/889,300
Filed: September 13, 2001
For: USE OF ANTIBODIES FOR THE VACCINATION AGAINST CANCER

Hon. Assistant Commissioner
For Patents
Washington, D.C. 20231

DECLARATION UNDER 37 C.F.R. § 1.132 of HANS LOIBNER

I, Hans Loibner, hereby declare and state as follows:

1. I am one of the co-inventors of the subject matter of the above-identified application.
2. I am currently Chief Executive Officer of Igeneon Krebs-Immuntherapie-Forschungs- und Entwicklungs-AG, a research based biotechnology company. Prior to that I was working as head of R&D of cancer vaccines for more than 15 years. My Curriculum Vitae is enclosed as Exhibit 1.
3. I have published over 15 scientific papers in the field of cancer research, a list of publications is enclosed as Exhibit 2.
4. I make this declaration to make record of supplemental results, which further demonstrate the safety and efficacy of a vaccine described in the above-identified application. Specifically I make this declaration to present the following clinical data derived from phase I and phase II clinical trials generated under my direction and supervision.
5. I declare that following description of clinical results includes safety, tolerability and efficacy of an anti-EpCAM antibody vaccine in treating cancer patients, wherein the patients are actively immunized by the anti-EpCAM antibody vaccine and the production of autologous antibodies can be actively induced thereby.

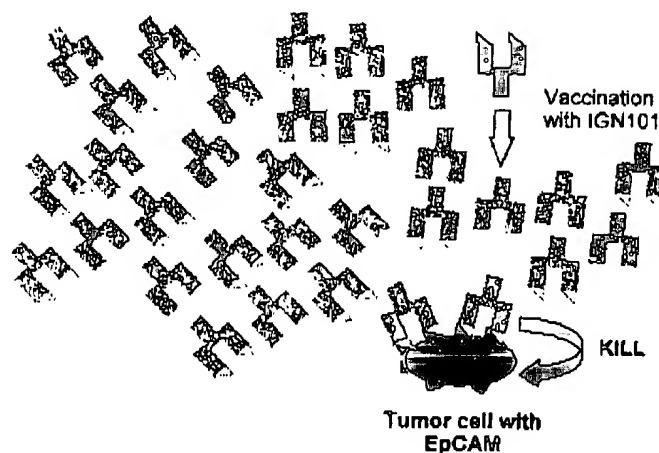
6. Mode of Action of the Vaccine:

IGN101 consists of a xenogeneic (foreign) protein used as vaccine antigen in an immunogenic formulation. This xenogeneic vaccine antigen is the murine monoclonal antibody 17-1A.

IGN101 has structural epitopes (mimotopes) related to EpCAM and elicits an immune response that is directed towards the vaccine antigen and because of its structural similarity, towards EpCAM.

Antibodies induced by vaccination with IGN101 recognize epithelial cancer cells as "foreign" and activate effector functions such as complement-dependent cytotoxicity (CDC) and antibody dependent cellular cytotoxicity (ADCC). These effector mechanisms may be directed to eliminate single carcinoma cells disseminated from the primary tumor.

Mechanism of action of IGN101



7. Summary of Clinical Trial Studies:

A Phase I clinical trial with IGN101 was completed at the Medical University Clinic Graz, Austria in 2001. 18 patients with biopsy proven carcinoma that failed conventional therapy or were deemed refractory to standard agents, were enrolled. Patients received 0.5 mg IGN101 subcutaneously on days 1, 15, 29 and 57.

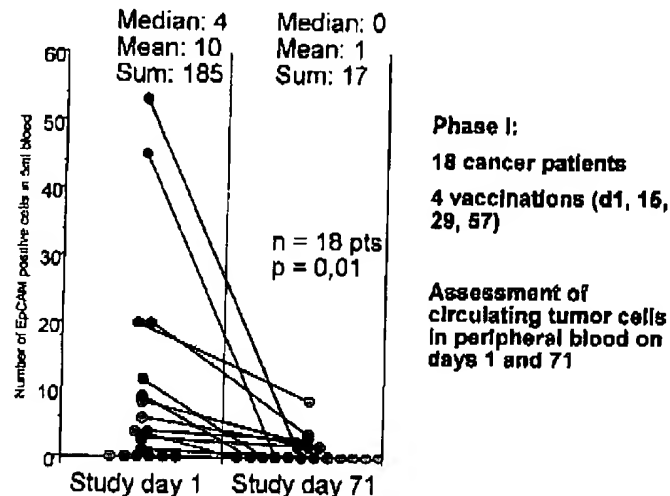
Immunological assessments included the total humoral immune response, the IgG/IgM level and the amount of EpCAM specific antibodies. Evidence of anti-tumor effects were assessed by determination of the number of EpCAM positive tumor cells in blood measured on days 1, 29 and 71.

Phase I Results

- **Excellent tolerability:** The only side effects seen were mild to moderate transient erythema (reddening of the skin) at the injection site, no systemic side effects were observed.
- **High overall and specific immunogenicity:** Seroconversion occurred in all patients and a secondary IgG antibody response was induced, indicating T-cell help and memory. In all patients anti-EpCAM IgG was induced. In 10/18 patients anti-EpCAM IgG 5-31 µg/ml serum was isolated.
- **No influence of prior chemotherapy (CT) on immunogenicity:** 12/18 patients received CT at least six weeks prior to vaccinations. These patients showed a similar overall and specific immune response compared to those without CT.

- **Early indication of efficacy:** The number of circulating EpCAM+ cells in blood significantly decreased during the vaccination course. Furthermore, in some patients a decrease or stabilization of tumor markers was seen. 15/18 patients showed stable disease for at least 2 months.

Figure 1: Reduction of EpCAM positive cells



A Phase II clinical trial was completed in 2002 at the Medical University Clinic Graz, Austria. Objective of the study was to assess the influence of concomitant chemotherapy (CT) on immunogenicity of IGN101 in patients with carcinoma likely to express EpCAM. Three different, frequently used CT regimens were analyzed. Results showed specific immunogenicity in almost all patients, comparable to results of Phase I, despite concomitant chemotherapy and no significant negative impact of the concomitant chemotherapy. The results allow further clinical testing of IGN101 in a wide range of clinical settings, including major cancer indications and stages where chemotherapy is standard of care.

Two Phase II studies and a Phase II/III study are currently under way. In an open-label Phase II study, IGN101 is being tested in 45 patients with epithelial cancers. Primary objective is assessment of surrogate efficacy of IGN101 against circulating tumor cells in blood. The study started in 2002 at the Medical University Clinic Graz, the University Clinic Innsbruck, the General Hospital (AKH) Vienna, Austria and the Charité, Berlin, Germany

Phase II efficacy trial

A placebo-controlled, double blind Phase II trial with IGN101 in 220 patients with three epithelial cancers (lung, colorectal, esophageal/gastric cancer) stage III and IV is currently being conducted. The study started in September 2001. Patient recruitment has ended beginning of July 2003. The study is performed under GCP rules and is expected to end in Q4 2003. The clinical end point is overall survival.

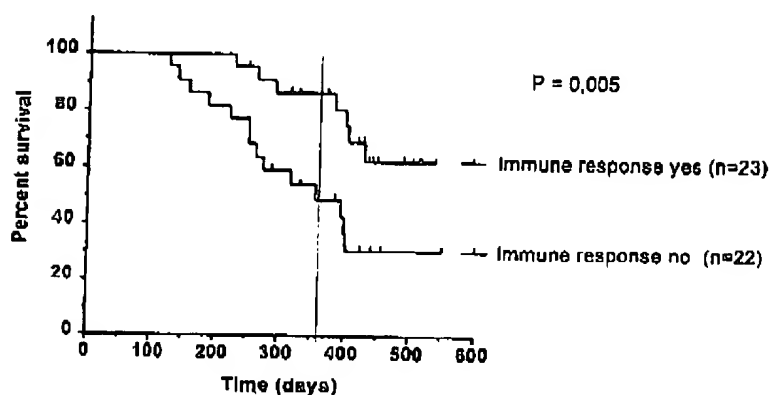
A blinded analysis of immune responses was performed with sera of 91 colorectal patients (45 in stage IV and 46 in stage III). 50.4% of these patients proved an immune response (50% is the theoretical number based on 1:1 randomization of placebo- and verum-treated patients).

Phase II Results

- **No influence of concomitant CT on immunogenicity:** In an open-label Phase II study, IGN101 was tested in 47 patients in direct combination with different chemotherapies to evaluate the influence of cytotoxic therapies on immunogenicity. Chemotherapy cycles started at the day of first vaccination and were continued as usual. Chemotherapies were grouped into taxane/anthracyclines, platinum compounds and others. As result, all patients mounted an immune response. A comparison of the immune responses with those observed in Phase I showed that overall and EpCAM-specific immunogenicity was mostly retained despite of different immunosuppressive CT.
- **Promising first survival benefit results:** In the context of the ongoing double blind placebo-controlled Phase II trial, a blinded analysis of immune responses was performed with sera of 91 colorectal patients (45 in stage IV and 46 in stage III). 50.4% of these patients proved an immune response to the vaccine antigen in IGN101 (50% is the theoretical number based on the 1:1 randomization of placebo- and IGN101-treated patients). The immune response results of the CRC stage IV patients were correlated with survival: The 1-year survival rate of the CRC IV patients without immune response (n=22) is 45%, corresponding well to the results of a large related database (Cochrane Library 2003, issue 1; 1-year survival 44.3%). The 1-year survival rate of the CRC IV patients with a proven immune response to IGN101 (n=23) amounts to 85%. This difference is statistically significant (p=0.005). The corresponding Kaplan-Meier survival curves are shown in figure 2. Patients in both groups are well balanced with regard to Karnofski performance status, liver enzyme values and treatment by concomitant chemotherapy.

Figure 2: Survival in Metastatic CRC (colorectal cancer)

CRC IV (n=45):
Survival based on Immune response



8. I further declare that all statements made herein of my knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that wilful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such wilful false statements may jeopardize the validity of this application or any patent issuing thereon.


HANS LOBNER; Ph.D.

Signed this 9 day of
September, 2003
At Vienna, Austria

Hans Loibner

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 Brunner Strasse 69/3, 1230 Vienna/Austria
Phone: +43/1/90250 111 **Fax:** +43/1/90250 901
hans.loibner@igeneon.com

PROFESSIONAL EXPERIENCE**igeneon, Vienna, Austria**

as of 1999

igeneon Krebs-Immuntherapie Forschungs- und Entwicklungs-AG**Novartis (Sandoz) Forschungsinstitut, Vienna, Austria****Head of Oncology Group Vienna**

1997 - 1999

- Support of the anti-idiotypic antibody vaccine MMA 383
- Basic research in the area of active specific immunotherapy

Head of MMA 383 Support Group

1996 - 1997

- Support of further development of the anti-idiotypic antibody vaccine MMA 383, aiming at initiation of clinical proof of concept trials 1/1997

Head of Department "Genetics"

1995 - 1996

- Establishment of highly automatized methods for comprehensive analysis of expressed genes as novel tool for identification of molecular targets for disease intervention in all disease areas of interest for Sandoz Pharma
- Shaping of the collaboration with Prof. Lehrach, MPI Berlin regarding fingerprinting analysis of expressed genes
- Responsibility for preclinical development of an anti-idiotypic antibody vaccine against epithelial cancer (MMA 383) generated at SFI in the context of an international project team

Head of Department "Special Projects"

1990 - 1994

- Assessment of immunological and serological parameters of cancer patients in the context of clinical studies with cancer immunotherapy approaches developed at SFI
- Generation and preclinical profiling of new projects in specific cancer immunotherapy

Head of international project teams

1987 - 1994

- Responsibility for coordinated international preclinical and in particular clinical development of projects in specific cancer immunotherapy (ABL 364: monoclonal antibody for passive immunotherapy, SCV 106: anti-idiotypic antibody vaccine for therapeutic vaccination), together with internal departments and involved external clinical centers.

Head of Department "Antibodies"

1986 - 1989

- Discovery, profiling and development of antibody-based immunotherapies against cancer, in particular tumor specific monoclonal antibodies for passive immunotherapy and anti-idiotypic antibodies for therapeutic vaccination
- Generation and characterization of new monoclonal antibodies for all research purposes of the institute
- Fermentation of bacteria as well as of mammalian cells for production of proteins
- Protein purification and -analytics; automated peptide synthesis

Head of Department "Molecular Enzymology", Head of working group
"Aminoglycoside-Antibiotics", Head of a chemistry laboratory, postdoctoral fellow at
Sandoz Forschungsinstitut (SFI)

1977-1986

EDUCATION**Ph. D.**

1977

Thesis at Department of Organic Chemistry

1975 - 1977

Professor Dr. E. Zbiral, University Vienna, synthetic organic chemistry

List of publications
Hans Loibner, Ph.D.

Full papers and book chapters

Increased expression of the blood group related LeY antigen on synovial fluid granulocytes of patients with inflammatory joint diseases

M. Dettke, G. Palfi, E. Pursch, E. Leeb, J. Smolen and H. Loibner
Rheumatology (Oxford). 2001 Sep;40(9):1033-7.

Activation-dependent expression of the blood group related Lewis Y antigen on peripheral blood neutrophils

M. Dettke, G. Palfi and H. Loibner
J Leukoc Biol. 2000 Oct;68(4):511-4.

Different types of FCgamma-receptors are involved in anti-Lewis Y antibody induced effector functions in vitro.

M. Dettke, H. Loibner.
Br J Cancer 82, 441-445 (2000)

A double blind randomized trial comparing immunization with anti-idiotypic goat antibody vaccine SCV 106 versus unspecific goat antibodies in patients with metastatic colorectal cancer

H. Samonigg, M. Wilders-Truschning, I. Kuss, R. Plot, H. Stöger, M. Schmid, T. Bauernhofer, A. Tiran, T. Pieber, L. Havelec and H. Loibner
J. Immunother 22, 481-488 (1999)

Humanized Anti-Lewis Y Antibodies: In Vitro Properties and Pharmacokinetics in Rhesus Monkeys

M. S. Co, J. Baker, K. Bednarik, E. Janzek, W. Neruda, P. Mayer, R. Plot, B. Stumper, M. Casquez, Cary Queen and H. Loibner
Cancer Research 56, 1118-1125 (1996)

Reduction of metastatic carcinoma cells in bone marrow by intravenously administered monoclonal antibody: Towards a novel surrogate marker for monitoring adjuvant therapies of solid tumors

G. Schlimok, K. Pantel, H. Loibner, I. Fackler-Schwalbe, G. Riethmüller
Eur. J. Cancer 31A, 1799-1803 (1995)

Enzymatic synthesis of analogs of bacterial lipid A and design of biologically active LPS-antagonists and -mimetics.

M. Bulusu, H. Hildebrandt, C. Lam, E. Liehl, H. Loibner, I. Macher, D. Scholz, E. Schütze, P. Stütz, H. Vypel, F. Unger
Pure and Applied Chemistry 66, 2171-2174 (1994);

Enhancement of retroviral infection in vitro by anti-LeY IgG: Reversal by humanization of monoclonal mouse antibody

J. E. Hansen, A. M. Sorensen, M. Arendrup, C. Nielsen, S. Oloffson, J. O. Nielsen, E. Janzek, H. Loibner
APMIS 101, 711-718 (1993)

Model for measurement of micrometastasis in epithelial tumours

G.Schlimok, K.Pantel, F.Lindemann, H.Loibner, G.Riethmüller

In: Hemopoietic Growth Factors and Mononuclear Phagocytes; Van Furth R. (ed.), pp 168-176 (1993)

Immune response to tumor antigens in a patient with colorectal cancer after immunization with anti-idiotypic antibody

H.Samonigg, M.Wilders-Truschnig, H.Loibner, R.Plot, A.Rot, I.Kuss, G.Werner, H.Stöger, M.Wrann, D.Herlyn, H.Koprowski

Clin. Immunol. and Immunopath. 65, 271-277 (1992)**Enzymatic synthesis and comparative biological evaluation of a phosphonate analog of the lipid A precursor**D.Scholz, K.Bednarik, G.Ehn, W.Neruda, E.Janzek, H.Loibner, K.Briner and A.Vasella
J. Med. Chemistry 35, 2070-2074 (1992)**Phase I/II study of monoclonal antibody against Lewis Y hapten in relapsed small cell lung cancer**

R.A.Stahel, H.Lacroix, J.P.Sculier, R.Morant, J.Richner, E.Janzek, H.Loibner and H.Blythman

Ann. of Oncology 3, 319-320 (1992)**Synthesis of fluorinated analogues of Lipid A**H.Vypel, D.Scholz, H.Loibner, M.Kern, K.Bednarik and H.Schaller
Tetrahedron Letters 33, 1261-1264 (1992)**Polyclonal anti-idiotypic antibodies mimicking the small cell lung carcinoma antigen cluster-5A interact with a panel of antibodies and induce specific immune response in animals**C.Zwicky, R.A.Stahel, H.Jaksche, R.Waibel, H.P.Lehmann and H.Loibner
Brit. J. Cancer 63, Suppl. XIV, 67-70 (1991)**Biological activity in the human system of isotype variants of oligosaccharide Y specific murine Mabs**

D.Scholz, M.Lubeck, H.Loibner, J.McDonald-Smith, Y.Kimoto, H.Koprowski and Z.Stepiewski

Cancer Immunol. Immunother. 33, 153-157 (1991)**Tumor cell lysis and tumor growth inhibition by the isotype variants of Mab BR55-2 directed against Y oligosaccharide**Z.Stepiewski, M.Lubeck, D.Scholz, H.Loibner, J.McDonald Smith and H.Koprowski
In Vivo 5, 79-84 (1991)**Treatment of a colon carcinoma patient with SDZ SCV 106 (anti-id 17-1A), a case study**

H.Samonigg, H.Loibner, M.Wilders-Truschnig, R.Plot, H.P.Brezinschek, A.Rot, I.Kuss, G.Werner, H.Stöger, M.Wrann, M.Schmid, G.H.Schneider, K.Arian-Schad, M.Klimpfinger, D.Herlyn and H.Koprowski

Proceedings of an International Symposium organized by the Department of Internal Medicine, Barmherzige Brüder Eggenberg Hospital, Graz, March 16, 1990; 1991 in: Modern aspects of tumor diagnosis and treatment. O.Eber, P.Lind, W.Langsteiger (Eds.)

Immunoreactivity of patient with colorectal cancer metastasis after immunization with anti-idiotypes

H.Loibner, R.Plot, A.Rot, G.Werner, M.Wrann, H.Samonigg, M.Schmid, H.Stöger, M.Truschnigg, D.Herlyn et al.
Lancet 335, 171 (1990)

Oligosaccharide Y specific monoclonal antibody and its isotype switch variants

Z.Steplewski, M.Blaszczyk-Thurin, M.Lubeck, H.Loibner, D.Scholz, H.Koprowski
Hybridoma 9, 201-210 (1990)

Chemical synthesis of endotoxin analogs and some structure activity relationships

P.L.Stütz, H.Aschauer, J.Hildebrandt, C.Lam, H.Loibner, I.Macher, D.Scholz, E.Schütze, H.Vypel
Int. Congr. Ser.- Excerpta Med. 923, in: *Cell. Mol. Aspects Endotoxin React.* p129-144, Eds.: Nowotny A., Spitzer J., Ziegler E., Amsterdam, Elsevier (1990)

Selective one step synthesis of N-acetylated polyamines and a HPLC-system for their analytical separation

H.Loibner, G.Seidl
Recent Progress in Polyamine Research, 1985; L.Selmeci, M.E.Brosnan, N.Seiler (Eds.), p597-605 (1985)

Reductive methylation of primary and secondary amines with formaldehyde and phosphorous acid salts

H.Loibner, A.Pruckner, A.Stütz
Tetrahedron Lett. 25, 2535-2536 (1984)

Synthesis and structure/activity relationships of new guanidino derivatives of aminoglycoside antibiotics

W.Streicher, H.Loibner, J.Hildebrandt, F.Turnowsky
Drugs Exp. Clin. Res. 9, 591-598 (1983)

Role of the 1-amino group in aminocyclitol antibiotics: Synthesis of 1-deaminogentamicin C2

M.Philippe, B.Quiclet-Sire, A.M.Sepulchre, S.D.Gero, H.Loibner, W.Streicher, P.Stütz, N.Moreau
J. Antibiot. 36, 250-255 (1983)

1-N-Acylation of gentamicin C1a by a cyclic, chiral gamma-amino-alpha-hydroxy acid related to the (S)-4-amino-2-hydroxybutyric acid

M.Philippe, A.M.Sepulchre, S.D.Gero, H.Loibner, W.Streicher, P.Stütz
J. Antibiot. 35, 1507-1512 (1982)

A low-cost medium-pressure liquid chromatography system for preparative separations

H.Loibner, G.Seidl
Chromatographia 12, 600-604 (1979)

Synthesis of 3-deoxy-3-aminovitamin D3 and 3-deoxy-3-epiamino-vitamin D3 and D2

H.Loibner, E.Zbiral
Tetrahedron Lett. 34, 713-716 (1978)

Reactions with organophosphorus compounds, XLIII. Structural modifications of nucleosides by means of triphenylphosphane/diethyl azodicarboxylate

H.Loibner, E.Zbiral

Justus Liebigs Ann. Chem. 1, 78-86 (1978)

Reactions using triphenylphosphane/azodicarboxylate. 2. Reactions with organophosphorus compounds. XLII. Nucleophilic substitution reactions of hydroxysteroids using triphenylphosphane/diethylazodicarboxylate

H.Loibner, E.Zbiral; Helv. Chim. Acta 60, 417-425 (1977)

Reactions with organophosphorus compounds. XLI. New synthetic aspects of the triphenylphosphine-diethyl azodicarboxylate-hydroxy compound system

H.Loibner, E.Zbiral

Helv. Chim. Acta 59, 2100-2113 (1976)

Poster and oral presentations (1990-2003)

Humanized monoclonal antibody IGN311 targeting Lewis Y: Pharmacokinetics and toxicology in Rhesus monkeys

Norbert Eller, Otto Doblhoff, Erich Wasserbauer, Evelyne Janzek, Gottfried Himmler and Hans Loibner

Tumor Markers: Discovery to Practice, Santa Barbara 2003

Comparison of three different methods for the quantification of circulating tumor cells in blood of patients with epithelial cancers

Andreas Obwallner, Hans Loibner, Gottfried Himmler, Bernhard Peball, Susanne Grunt, Philipp Oberkleiner, Thomas Bauernhofer, Hellmut Samonigg;

Tumor Cell Dissemination in Breast Cancer 2003, Tübingen

Vaccination with alum-adsorbed antibodies against EpCAM directly induces anti-EpCAM antibodies

Gottfried Himmler, Evelyne Janzek, Hans Loibner, Manfred Schuster, Günter Waxenecker, Hellmut Samonigg ;

Tumor Cell Dissemination in Breast Cancer 2003, Tübingen

Treatment of breast cancer patients with the cancer vaccine IGN101 that induces an immune response against the pan-carcinoma glycoprotein EpCAM

Hellmut Samonigg, Hans Loibner, Marija Balic, Guenter Hofmann, Manfred Schuster and Gottfried Himmler;

Tumor Cell Dissemination in Breast Cancer 2003, Tübingen

Evaluation of epithelial cell enumeration methods to detect tumor cells in blood of carcinoma patients

Andreas Obwallner, Hans Loibner, Gottfried Himmler, Bernhard Peball, Susanne Grunt, Philipp Oberkleiner, Günter Waxenecker, Alexander Van Der Kooi, Gerald V. Doyle, Leon WMM Terstappen, Thomas Bauernhofer, Hellmut Samonigg;

Tumor Markers: Discovery to Practice, Santa Barbara 2003

Vaccination with alum-adsorbed antibodies against EpCAM directly induces anti-EpCAM antibodies

Gottfried Himmler, Evelyne Janzek, Hans Loibner, Manfred Schuster, Günter Waxenecker, Hellmut Samonigg ;

Development Of Therapeutic Cancer Vaccines, Los Angeles 2003, 27.4. - 29.4.2003

Evaluation of epithelial cell enumeration methods to detect tumor cells in blood of carcinoma patients

Andreas Obwallner, Hans Loibner, Gottfried Himmler, Bernhard Peball, Susanne Grunt, Philipp Oberkleiner, Günter Waxenecker, Alexander Van Der Kooi, Gerald V. Doyle, Leon WMM Terstappen, Thomas Bauernhofer, Hellmut Samonigg;

Development Of Therapeutic Cancer Vaccines, Los Angeles 2003, 27.4. - 29.4.2003

Murine monoclonal antibody 17-1A used as vaccine antigen (IGN101): Direct induction of anti-EpCAM antibodies by vaccination of cancer patients

Manfred Schuster, Hans Loibner, Evelyne Janzek, Gottfried Himmler, Jungbauer Alois, Rainer Hahn, Astrid Dürauer, Hellmut Samonigg;

ASCO 2003, Chicago, 39th Meeting of the American Association of Clinical Oncology, 31.5 - 3.6.2003

Phase II trial to explore the influence of concomitant chemotherapy on the immunogenicity of the cancer vaccine IGN101 in patients with epithelial cancers.

H.Samonigg , G.Hofmann , T.Bauernhofer , M.Balic , H.Stoeger , G.Himmler, M.Schuster, F.Rosenkaimer, F.Groiss, H.Loibner;

ASCO 2003, Chicago, 39th Meeting of the American Association of Clinical Oncology, 31.5 - 3.6.2003

Reduction of EpCAM positive cells in peripheral blood of patients with epithelial cancers following vaccination with the cancer vaccine

Gottfried Himmler, Guenter Waxenecker, Thomas Putz, Bernhard Peball, Susanne Grunt, Guenter Hofmann, Sabine Schagerl, Hellmut Samonigg, Hans Loibner;

Eurocancer 2003, Paris, 8.7. - 10.7.2003

Comparison of EpCAM expression in different tumor types and normal tissues - impact on prognosis

Sauter G., Schuster M., Himmler G. and Loibner H.;

Eurocancer 2003, Paris, 8.7. - 10.7.2003

A phase IIb placebo-controlled trial to evaluate the effect of multiple doses of the cancer vaccine IGN101 in patients with EpCAM positive epithelial tumors

Seltf A, Albengres E, Koetting J, Nauck M, Kundi M, Rosenkaimer F, Schuster M, Himmler G, Loibner H, Eckert H;

Eurocancer 2003, Paris, 8.7. - 10.7.2003

Lewis Y / EpCAM co-expression in breast cancer is correlated with poor prognosis Guido

Sauter, Manfred Schuster, Gottfried Himmler, Hans Loibner

AACR 2003, Washington, 94th Meeting of the American Association for Cancer Research

Inhibition of signaling via erbB-receptors by antibodies that target the Lewis Y antigen

Markus Klinger, Hesso Farhan, Michael Freissmuth; Gottfried Himmler, Evelyne Janzek, Geert Mudde, Hans Loibner

AACR 2003, Washington, 94th Meeting of the American Association for Cancer Research

Comparison of three different methods for the quantification of circulating tumor cells in blood of patients with epithelial cancers

Andreas Obwaller, Hans Loibner, Gottfried Himmler, Bernhard Peball, Susanne Grunt, Philipp Oberkleiner, Thomas Bauernhofer, Hellmut Samonigg;

AACR 2003, Washington, 94th Meeting of the American Association for Cancer Research

Qualitative and quantitative dissection of the immune response to the cancer vaccine candidates IGN101 and IGN 301

Guenter Waxenecker, Gottfried Himmler, Manfred Schuster, Thomas Putz, Erich Wasserbauer, Evelyne Janzek, Renate Ohler, Stefan Stranner, Hans Loibner, Hellmut Samonigg;

AACR 2002, San Francisco, 93rd Meeting of the American Association for Cancer Research, 6.4. - 10.4. 2002

Randomized multicenter phase II/III trial in patients with non-small cell lung cancer (NSCLC) stage II and IIIA with the cancer vaccine IGN101 mimicking EpCAM

Joachim Hasse, Hellmut Samonigg, Franz Groiss, Gottfried Himmler, Hans Loibner;

3rd International Lung Cancer Congress 2002, Hawaii, 01.06.2002

Phase I trial of cancer vaccine IGN101 in patients with epithelial cancers
Guenter Hofmann, Sabine Schagerl, Gottfried Himmler, Thomas Putz, Susanne Grunt,
Bernhard Peball, Guenter Waxenecker, Hans Loibner and Hellmut Samonigg;
EACR 2002, Granada, 17th Meeting of the European Association for Cancer Research, 8. -
11.6.2002

Reduction of EpCAM positive cells in peripheral blood of patients with epithelial cancers
following vaccination with the cancer vaccine IGN101
Gottfried Himmler, Guenter Waxenecker, Thomas Putz, Bernhard Peball, Susanne Grunt,
Guenter Hofmann, Sabine Schagerl, Hellmut Samonigg and Hans Loibner;
EACR 2002, Granada, 17th Meeting of the European Association for Cancer Research, 8. -
11.6.2002

Treatment of breast cancer patients with the cancer vaccine IGN101 that induces an
immune response against the pan-carcinoma glycoprotein EpCAM
Hellmut Samonigg, Hans Loibner, Marija Balic, Guenter Hofmann, Manfred Schuster and
Gottfried Himmler;
Breast Cancer Congress 2002, Nassau, 30.7.- 3.8.2002

Comparison of three different methods for the quantification of circulating tumor cells in
blood of patients with epithelial cancers
Andreas Obwaller, Hans Loibner, Gottfried Himmler, Bernhard Peball, Susanne Grunt,
Philipp Oberkleiner, Thomas Bauernhofer, Hellmut Samonigg;
SBT 2002, Berlin, 17th Meeting, Society of Biological Therapy, 7.11 - 10.11.2002

Vaccination with alum-adsorbed antibodies against EpCAM directly induces anti-EpCAM
antibodies
Gottfried Himmler, Evelyne Janzek, Hans Loibner, Manfred Schuster, Günter Waxenecker,
Hellmut Samonigg ;
SBT 2002, Berlin, 17th Meeting, Society of Biological Therapy, 7.11 - 10.11.2002

Phase I trial of cancer vaccine IGN101 in patients with epithelial cancers
H.Samonigg, G.Hofmann, S.Schagerl, G.Himmler, T.Putz, H.Loibner
Proceedings of ASCO Vol. 21, 2002, abstract 1898

Reduction of EpCAM positive cells in peripheral blood of patients with epithelial cancers
following vaccination with the cancer vaccine IGN101
H.Loibner, G.Himmler, T.Putz, B.Peball, G.Hofmann, S.Schagerl, H.Samonigg
Proceedings of ASCO Vol. 21, 2002, abstract 1899

Sequential affinity purification of antibodies induced by vaccination with MMA383:
quantitative and qualitative characterization
E.Wasserbauer, G.Ehn, R.Plot, F.Süssenbacher, A.Neubauer, W.Neruda and H.Loibner
Poster, ISPPP '98, Nov. 1 - 4, 1998, Vienna

MMA 383: Anti-idiotypic antibody mimicking the Lewis Y carbohydrate for vaccination
against epithelial cancer
H.Loibner, R.Plot, E.Wasserbauer, G.Ehn, P.Mayer, E.Janzek, W.Neruda, C.Rossbacher,
W.Kinzy
Poster, Symposium Antibodies –Molecular, Cellular and Clinical Aspects, April 22-24, 1998
NewYork City

List of publication
Hans Loibner, Ph.D.
September 2003

Anti-Lewis Y cancer vaccine MMA 383,
H. Loibner, C. Smith
Lecture, BTDG Meeting Sept. 1997, Vienna

Charge microheterogeneity of a murine monoclonal IgG1 anti-idiotypic antibody
G.Waxenecker, E.Wasserbauer, H.Katinger and H.Loibner
Lecture, 45th Interlaken Conference, March 1997, Switzerland

Separation of a murine monoclonal IgG1 anti-idiotypic antibody in isoforms by
multicompartement electrophoresis
G.Waxenecker, E.Wasserbauer, H.Katinger and H.Loibner
Lecture, 45th Interlaken Conference, March 1997, Switzerland

Monoklonale Antikörper und anti-idiotypische Antikörper in der Krebstherapie
H.Loibner
Lecture, CEIP-Continuing Education in Industrial Pharmacy, Basel, 28.11.95

Expression of the Lewis Y oligosaccharide, a blood group-related difucosyl lacto type II
series antigen, on human myeloleukemic cell lines and mature peripheral neutrophils
M.Dettke, G.Palfi, E.Rüde, H.Loibner
Poster, Jahrestagung ESCI, Cambridge, UK, April 1995

Immunization with anti-Idiotypic vaccine SCV 106 prolongs survival time of cancer patients
with metastatic colorectal cancer: A randomized double blind clinical trial
H.Samonigg, M.Wilders-Truschnig, I.Kuss, R.Plot, H.Stöger, M.Schmid,
T.Bauernhofer, A.Tiran, L.Havelec and H.Loibner
Poster, Jahrestagung d. Deutschen und Österreichischen Gesellschaft f. Hämatologie und
Onkologie, Vienna, Onkologie 17, S2, S.125, Abstr. 498 (1994);
Lecture, Third International Symposium Biological Therapy of Cancer,
April 19-22, 1995, Munich, Germany

Vaccination of rhesus monkeys with an anti-idiotypic antibody mimicking Lewis Y:
Enhancement of the anti-tumor immune response by repeated administrations
of rhGM-CSF
H.Loibner, E.Janzek, B.Stumper, P.Mayer, E.Liehl
Poster, Jahrestagung d. Deutschen und Österreichischen Gesellschaft f. Hämatologie und
Onkologie, Vienna, Onkologie 17, S2, S.92, Abstr. 365 (1994); and
Poster, 3rd International Symposium Biological Therapy of Cancer, Munich,
19-22 April 1995

Individual metastatic carcinoma cells in bone marrow of cancer patients are depleted by
treatment with a monoclonal antibody directed against Lewis Y
G.Schlimok, G.Riethmüller, K.Pantel, I.Fackler-Schwalbe, H.Loibner
Poster, Jahrestagung d. Deutschen und Österreichischen Gesellschaft f. Hämatologie und
Onkologie, Vienna, Onkologie 17, S2, S.129, Abstr. 513 (1994)

Phase II study of a multiple dose intravenous administration of a murine monoclonal IgG3
antibody (SDZ ABL 364) in breast carcinoma patients with low tumor burden
I.Kuss, H.Samonigg, H.Stöger, A.-K.Kasperek, M.Schmid, T.Bauernhofer, R.Moser,
F.Ploner, E.Derstvenscheg, C.Lackner, M.Wilders-Truschnig, R.Plot, H.Loibner
Poster presentation, Jahrestagung der Deutschen und Österreichischen Gesellschaft für
Hämatologie und Onkologie, Vienna, Onkologie 17, S2, S.86, Abstr. 341 (1994)

List of publication
Hans Loibner, Ph.D.
September 2003

A high molecular weight glycoprotein bearing blood group related carbohydrate antigens of the Lewis family (LeX; LeY) is shed by epithelial tumor cells in vitro and in vivo

M.Dettke, F.Süssbacher, E.Wasserbauer, E.Rüde, H.Loibner

Poster presentation, Jahrestagung der Deutschen und Österreichischen Gesellschaft für Hämatologie und Onkologie, Vienna, Onkologie 17, S2, S.24, Abstr. 95 (1994); and Annual Meeting of the European Society for Clinical Investigations, Toledo, April 1994

Immunization of rhesus monkeys with an anti-idiotypic antibody mimicking Lewis Y:

Enhancement of the anti-tumor immune response by repeated administrations of rhGM-CSF

H.Loibner, P.Mayer, E.Liehl

Short oral communication, AACR 1994, April 10-13, 1994, San Francisco

Humanized anti-Lewis Y antibody - in vitro properties and pharmacokinetics in rhesus monkeys

H.Loibner, K.Bednarik, E.Janzek, W.Neruda, P.Mayer, M.S.Co

Poster presentation, Jahrestagung der Deutschen und Österreichischen Gesellschaft für Hämatologie und Onkologie, Vienna, Onkologie 17, S2, S.92, Abstr. 368 (1994); and SBT 1993, Nashville, Tennessee, Abstracts of the Society for Biological Therapy, Annual Meeting, J. Immunother. 14, p358 (1993)

A monoclonal anti-idiotypic antibody that mimics the Lewis Y carbohydrate antigen - crossreactivity with a CDR-grafted version of Ab1 as proof of internal image properties

H.Loibner, H.Jaksche, R.Plot, E.Pursch and E.Janzek

Poster presentation, Jahrestagung der Deutschen und Österreichischen Gesellschaft für Hämatologie und Onkologie, Vienna, Onkologie 17, S2, S.92, Abstr. 366 (1994); and SBT 1993, Nashville, Tennessee, Abstracts of the Society for Biological Therapy, Annual Meeting, J. Immunother. 14, p357 (1993)

A monoclonal anti-idiotypic antibody that mimics the Lewis Y carbohydrate antigen - immunization of rhesus monkeys leads to a strong immune response specific for Lewis Y positive cancer

H.Loibner, H.Jaksche, E.Janzek, M.Attinger, M.Azria

Poster presentation, Jahrestagung der Deutschen und Österreichischen Gesellschaft für Hämatologie und Onkologie, Vienna, Onkologie 17, S2, S.92, Abstr. 367 (1994); and SBT 1993, Nashville, Tennessee, Abstracts of the Society for Biological Therapy, Annual Meeting, J. Immunother. 14, p357 (1993)

A monoclonal anti-idiotypic antibody that mimics the Lewis Y carbohydrate antigen - Internal image properties and induction of a strong anti-tumor immune response in rhesus monkeys

H.Loibner, K.Bednarik, H.Jaksche, W.Neruda, R.Plot, E.Pursch, E.Janzek

Poster presentation, AACR, Nov. 7-11, 1993, Asheville, North Carolina

Real-time biospecific interaction analysis for the characterization of anti-idiotypic antibodies

H.Loibner, R.Plot, E.Janzek

Oral presentation, BIA-Symposium, Sept. 1993, London

Monoclonal Lewis Y antibody for treatment of breast cancer patients: Demonstration of depleting effect on metastatic cells in bone marrow

G.Schlimok, I.Fackler-Schwalbe, K.Pantel, H.Loibner, G.Riethmüller

Poster, ASCO 1993, May 1993, Orlando, USA

Proc. Annu. Meet. Am. Soc. Clin. Oncol. 12: A939, 1993

List of publication

Hans Loibner, Ph.D.

September 2003

Properties of humanized monoclonal antibodies directed against the Lewis Y carbohydrate antigen

H.Loibner

Lecture at Scripps Research Institute, La Jolla, California, USA, March 17, 1993

Murine IgG3 anti-Lewis Y antibody SDZ ABL 364 and its mouse/human chimera stimulate the secretion of TNF in ADCC via engagement of monocytic Fc II receptors

M. Dettke, H.Loibner

Poster, 8th International Conference on Monoclonal Antibody Immunoconjugates for Cancer, 18.-20.3.1993, San Diego, USA

Generation and characterization of humanized anti-Lewis Y antibodies

H.Loibner, K.Bednarik, E.Janzek, W.Neruda, R.Plot, M.S.Co, J.Baker

Poster, IBC Conference, 14.-16.12.1992, San Diego, USA;

Poster, 8th International Conference on Monoclonal Antibody Immunoconjugates for Cancer, 18.-20.3.1993, San Diego, USA

Inflammation at tumor site induced by treatment of breast cancer patients with anti Lewis Y Mab SDZ ABL 364; assessment by thermographic equipment

H.Samonigg, H.Stöger, M.Wilders-Truschnig, E.Janzek, R.Plot, H.Loibner

Poster, Williamsburg Conference of Biological and Immunological Treatments of Cancer, 29.10.-1.11.1992, Williamsburg, USA; Poster, SFI, December 1992;

Poster, 8th International Conference on Monoclonal Antibody Immunoconjugates for Cancer, 18.-20.3.1993, San Diego, USA

SDZ ABL 364, a murine monoclonal IgG3 antibody directed against the Lewis Y antigen inhibits tumor cell adhesion to endothelial cells in vitro

M.Dettke, H.Loibner

Poster, Williamsburg Conference of Biological and Immunological Treatments of Cancer, 29.10.-1.11.1992, Williamsburg, USA;

Fc-dependent binding self-cooperativity of SDZ ABL 364, a murine IgG3 antitumor Mab as demonstrated by Biospecific Interaction Analysis

H.Loibner, K.Bednarik, E.Janzek, W.Neruda, R.Plot

Poster, Williamsburg Conference of Biological and Immunological Treatments of Cancer, 29.10.-1.11.1992, Williamsburg, USA; and

Oral presentation, BIA-Symposium 1992, Paris, Abstr. S.34 (1992)

Anti-Lewis Y Mab SDZ ABL 364: a candidate for the treatment of minimal residual cancer

H.Loibner

Lecture, 8th International Congress of Immunology Satellite Symposium

"Immunopharmacology", August 1992, Budapest

Differential immune response to the carbohydrate and peptide parts of novel synthetic tumor glycopeptide immunogen

J.Thurin, C.Hackett, L.Otvos, H.Loibner

Poster, Keystone Symposium on Glycobiology, 1992, J.Cell Biochem. Suppl. 0, 16 Part D, 159 (1992)

Human effector mechanisms for tumor cell lysis induced by murine IgG3 anti Lewis Y Mab and its mouse/human chimeras

H.Loibner

Lecture, The Scripps Research Institute, La Jolla, California, USA

March 9, 1992

Synthesis and use of a w-amino alkyl coated biosensor surface

R.Plot, H.Loibner

Lecture, 2nd European BIA-Symposium 1992, Paris, Abstr. S.55 (1992)

Destruction of micrometastatic cells in bone marrow following treatment of cancer patients with murine monoclonal IgG3 antibody SDZ ABL 364

H.Loibner, K.Bednarik, E.Janzek, W.Neruda, H.Blythman, I.Fackler-Schwalbe, G.Schlimok, K.Pantel, G.Riethmüller

Poster, 7th International Conference on Monoclonal Antibody Immunoconjugates for Cancer, San Diego, USA. Antibody, Immunoconjugates and Radiopharmaceuticals 5, p137, Abstr. 70 (1992)

Induktion von Tumorzytotoxizität in Krebspatienten durch Behandlung mit dem murinen monoklonalen IgG3 Antikörper SDZ ABL 364

H.Loibner

Lecture, Therapieforschung - Onkologie, University Regensburg, Germany, Feb. 1992

Murine IgG3 anti-tumor Mab SDZ ABL 364 and its mouse/human IgG1 and IgG3 chimeras

Induction of human effector functions for tumor cell lysis

H.Loibner, K.Bednarik, E.Janzek, W.Neruda, J.Baker and M.S.Co

Poster, 7th International Conference on Monoclonal Antibody Immunoconjugates for Cancer, San Diego, USA. Antibody, Immunoconjugates and Radiopharmaceuticals 5, p122, Abstr. 19 (1992); and

SBT 1991, Pittsburgh, PS, Abstracts of the Society for Biological Therapy, Annual Meeting, Abstr. p14 (1991)

Prospective randomized double-blind clinical trial in Dukes D colorectal cancer patients (anti-idiotypic vaccine SDZ 89-106 versus placebo)

H.Samonigg, M.Wilders-Truschnig, H.Loibner, R.Plot, H.Stöger, M.Klimpfinger, I.Kuss, B.Mull

Poster, SBT 1991, Pittsburgh, PS, Abstracts of the Society for Biological Therapy, Annual Meeting, Abstr. p19 (1991)

Destruction of individual tumor cells in carcinoma patients following treatment with a murine monoclonal IgG3 antibody - implications for treatment of residual minimal disease

H.Loibner, G.Schlimok

Main lecture, Gem.Jahrestagung der Deutschen u.d. Österr. Ges. f. Hämatologie und Onkologie, Innsbruck, Austria, October 1991

Tumor cell cytotoxicity induced in patients by a murine monoclonal antibody against the Lewis Y antigen

G.Schlimok, K.Pantel, I.Fackler-Schwalbe, J.Eisenburg, H.Blythman, E.Janzek, D.Scholz, G.Riethmüller and H.Loibner

Poster, ASCO Meeting Houston, Texas, 1991, Abstr.: Proc. Annu. Meet. Am. Soc. Clin. Oncol. 10: A709 (1991)

List of publication

Hans Loibner, Ph.D.

September 2003

Phase I/II study of monoclonal antibody SDZ ABL 364 in relapsed small cell lung cancer (SCLC)

R.A.Stahel, H.Lacroix, J.P.Sculier, R.Morant, J.Richner, H.Blythman, E.Janzek and H.Loibner

Poster, AACR Meeting Houston, Texas, 1991, Abstr.: Proc. Annu. Meet. Am. Assoc. Cancer Res. 32: A1129 (1991)

Destruction of autologous tumor cells following treatment of cancer patients with murine monoclonal antibody SDZ ABL 364

H.Loibner, E.Janzek, D.Scholz, G.Schlimok, I.Fackler-Schwalbe, H.Blythman, K.Pantel, J.Eisenburg and G.Riethmüller

Poster, Immunopharmacology Conference, Tampa, Florida, Abstr. 163 (1991)

SDZ ABL 364, ein monoklonaler Antitumor-Antikörper zur Immuntherapie von Tumoren epithelialen Ursprungs - präklinische und klinische Ergebnisse

H.Loibner

Lecture, University Graz, April 1991

Influence of HAMA on tumor cell lysis capacity of sera of patients treated with murine anti-tumor Mab SDZ ABL 364

H.Loibner, E.Janzek, K.Bednarik, W.Neruda, D.Scholz, G.Schlimok, R.Stahel

Poster, Immunopharmacology Conference, Tampa, Florida, Abstr. 164 (1991); and SBT 1990, San Diego, Abstracts of the Society for Biological Therapy, Annual Meeting, Abstr. p15, No.21 (1990)

Treatment of a colon carcinoma patient with SDZ SCV 106 (goat-anti-id 17-1A); a case study

H.Loibner, A.Rot, R.Plot, G.Werner, H.Samonigg, H.Stöger, M.Wilders-Truschnigg, D.Herlyn

Poster, SBT 1990, San Diego, Abstracts of the Society for Biological Therapy, Annual Meeting, Abstr. p15, No.20 (1990); and

Poster, Gemeinsame Jahrestagung der Deutschen und der österreichischen Gesellschaft für Hämatologie und Onkologie, Cologne, Germany, Abstr. p166, No.382 (1990)

Phase I trial with murine monoclonal antibody SDZ ABL 364 in breast and colorectal cancer patients

G.Schlimok, K.Pantel, I.Fackler-Schwalbe, J.Eisenburg, H.Blythman, D.Scholz, G.Riethmüller, H.Loibner

Poster, SBT 1990, San Diego, Abstracts of the Society for Biological Therapy, Annual Meeting, Abstr. p15, No.22 (1990); and

"Cancer and the immune system", Venice, Italy, October 1990

SDZ ABL 364, a murine monoclonal antibody with high therapeutic potential for treatment of cancer patients

H.Loibner, D.Scholz, K.Bednarik, E.Janzek, W.Neruda, Z.Steplewski, G.Schlimok

Poster, Gemeinsame Jahrestagung der Deutschen und der österreichischen Gesellschaft für Hämatologie und Onkologie, Cologne, Germany, Abstr. p166, No.381 (1990)

Whole blood tumor cytotoxicity in patients following infusion of SDZ ABL 364 (BR55-2)

H.Loibner

Lecture, Advances in Immunodiagnosis and Immunotherapy of Cancer, Fort Lauderdale, Florida, March 1990

List of publication

Hans Loibner, Ph.D.

September 2003

Inventorship or co-inventorship (US patents, EP patents and WO publications)

US5562903

HUMANIZED ANTIBODIES THAT RECOGNIZE DIFUCOSYL LEWIS BLOOD GROUP ANTIGENS Y-6 AND B-7-2

US5523085

MONOCLONAL ANTIBODY IN DESTRUCTION OF SMALL CELL LUNG CARCINOMA

US4503046

1-NITRO-AMINOGLYCOSIDE DERIVATIVES, PHARMACEUTICAL COMPOSITIONS CONTAINING THEM AND SUCH DERIVATIVES FOR USE AS PHARMACEUTICALS

EP1140168

VACCINATION AGAINST CANCER

EP 1 230 932

USE OF ANTIBODIES FOR ANTICANCER VACCINATION

EP0644947

ANTI-IDIOTYPIC MONOCLONAL ANTIBODIES AGAINST THE LEWIS Y-SPECIFIC MONOCLONAL ANTIBODY BR55-2 AND THEIR USES.

EP0547079

NEW USE OF A MONOCLONAL ANTIBODY.

EP0528767

ANTIBODY DERIVATIVES.

EP0445078

NEW USE OF A MONOCLONAL ANTIBODY.

EP0072351

AMINOGLYCOSIDE DERIVATIVES, PROCESSES FOR THEIR PRODUCTION, PHARMACEUTICAL COMPOSITIONS CONTAINING THEM AND SUCH DERIVATIVES FOR USE AS PHAR

EP0056408

GUANYLATED AMINOGLYCOSIDES, A PROCESS FOR THEIR PRODUCTION AND THEIR USE AS PHARMACEUTICALS.

WO 02/096455

USE OF POLYCLONAL IMMUNOGLOBULINS

WO0170272

POLYSACCHARIDE-POLYPEPTIDE CONJUGATE

WO0170264

METHOD FOR PRODUCING VACCINES CONTAINING A HEAT-TREATED MIXTURE CONSISTING OF AT LEAST ONE ANTIGEN AND OF AT LEAST ONE ADJUVANT

WO0135989

NOVEL USE OF ANTIBODIES AS VACCINES

List of publication
Hans Leibner, Ph.D.
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WO0041722
USE OF ANTIBODIES FOR ANTICANCER VACCINATION

WO9324647
ANTI-IDIOTYPIC MONOCLONAL ANTIBODIES AGAINST THE LEWIS Y-SPECIFIC
MONOCLONAL ANTIBODY BR55-2 AND THEIR USES

WO9203165
NEW USE OF A MONOCLONAL ANTIBODY

WO8401386
NEW AMINE GLUCOCYDE DERIVATIVES, PREPARATION AND UTILIZATION METHOD

WO8200464
GUANYLATED AMINOGLYCOSIDES, A PROCESS FOR THEIR PRODUCTION AND
THEIR USE AS PHARMACEUTICALS

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Hans Loibner, Ph.D.
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